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NEWSLETTER

INDIANAPOLIS RADIO CLUB, INC.

Regular meetings held on the 2nd & 4th Fridays at 8:00 PM in the United Christian Mission Bldg. 222 S. Downey

Trustee Ron Williams W9JVF
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FEBRUARY 19, 1973 INDIANAPOLIS RADIO CLUB INC. ISSUE NO. 4

PROGRAM TOUR 7:30 AT MALLORY FRIDAY FEBRUARY 23, GO DIRECTLY TO MALLORY TECHNICAL INSTITUTE (IVY TECH) 1315 E. Washington St. Tour Begins at 7:30 Sharp. Park on west side of Building and enter thru side door. SEE ATTACHED MAP FOR FULL DETAILS MEET IN ROOM 220. Ed McNay (ex W9EXU) has arranged a full tour plus a program on "TROUBLE SHOOTING ELECTRONIC CIRCUITS, WITH DEMONSTRATIONS IN SCHOOL LAB WITH SCOPE ETC. HERE IS YOUR CHANCE TO LEARN SOMETHING...FREE..DONT MISS THIS TECH PRG.

PROGRAM REVIEW: Robert Kryter gave the IRC a stimulating insite into the atomic and "H" bomb and energy problems.. see reverse side for full review.

THANKS GO TO: Mr. Bernard J. Weimer - W9DLG for his donation to the IRC of an audio generator, three inter-comms, and a line amplifier. Tnx for the gear.

TXN FOR DONATIONS Members & guests are due a vote of thanks for their contrubutions to the club flower fund in the amount of \$11.31 and for the Southport High School Radio Library fund in the amount of \$11.87 Feb 9th meeting.

DIRECTORY: Alvey Pittman Jim Sugioka and other interested members are working on organizing the club directory. Charlie Byers WB9GCD will help on securing advertising, Jane Heaton...etc who's next to volunteer//??

RED Cross Club Malcolm Mallette WA9BVS has extended the IRC to visit them at their club meetings at the Red Cross building on their Monday meetings.

PHOTO BUFF'S The Ed received a photo of himself taken at a recent directors meeting with available light, F/2.3 ASA 250 XX 1/30 sec. on automation with a Konica SLR reflex. So come to the club and if you copy this kind of talk their are others photo buff's who are hams too!

ON THE AIR RUMOR MILL On 2 FM Mel Peterson WA9ZXS advises that Young Snodgrass WA9QMU says to say hello to all the gang at IRC Mel talked to him for a while the other day/ A round table quickly formed on 16/76 K9LPW with some old friends, Hank Wolfla K9LZJ, Al Minnich K9SUW, Mel WA9ZXS we in QSO with Bob W9PSE, Al now lives on West Mich and no longer has such a long drive to his work at J & L. Ed logged NOVICE QSO with Doug Loughmiller WN9KPC, Tom Chance WN9KWS on 40 meters, plus WN1 Mass. Wn4 Tampa, Fla etc. for first op time in months.

Founded 1914 our 59th year!

PROGRAM REVIEW OF ROBERT KRYTER, 9 Feb. 1973

Our energy requirements are doubling every ten years, while our fossil fuels are limited. Our petroleum imports are increasing yearly, plus the rate of pollution. Stars are a terrific source of energy, and if their thermonuclear energy evolving process could be duplicated, we should have abundant energy for centuries. Our sun is a TN source of energy by an interaction converting Hydrogen to Helium, and emitting energy surplus, thus some of the mass of the sun is actually converted to energy via the well known equation $E=MC^2$. This process is one of fusion, the putting together of the nucleii of atoms with the evolution of energy.

Atomic energy sources currently use a different process called fission wherein an unstable, energy charged atom of Uranium is broken apart into garbage elements and energy is evolved along with a lot of useless radioactive junk which must be gotten rid of. In the fusion process, all this is obviated since the result is Helium, which is an inert or noble gas, non-radioactive and produced in small amounts. This gas has commercial value or could be released into the atmosphere

like our carbon dioxide is now. Deuterium is being currently tried in experimental reactors, because it contains a neutron along with it's nuclear proton, and when two of these nucleii are jammed together at high energy (velocity) they fuse together and become Helium and release some energy known as the binding energy. Tritium and deuterium reactions are more feasible.

We have to actually make a small star or sun and keep it in a bottle. Now the temperature at which such reactions take place is about 180 million degrees, so our problem is in three steps. How do you ignite such a star, how do you contain anything that is a 180 million degrees, and how do you take the energy out of it? The nucleii of deuterium and tritium are placed in a doughnut shaped one turn of a secondary of a transformer whose primary is connected to a charged up bank of capacitors the size of a 10 story hotel and the current in the secondary heats the nucleii to about 5 million degrees. Then the plasma (pure nucleii) is squeezed by the application of intense magnetic fields, which causes the temperature to rise, currently up to around 65 million degrees, insufficient to ignite the plasma. Additional temperature is expected from the use of LASER energy, currently under experimentation.

The Russians with their TOKAMAK reactor are ahead of USA, with Britain and France close behind us. All water contains a small but useful amount of deuterium, so we have virtually an inexhaustable supply of plasma fuel. One gallon of water will supply enough fuel energy equivalent to 300 gallons of gasoline at a cost of 4 cents. Bob opined that we should have a major breakthru within 5 years, and a working model in 10 years. There is great certainty that such a process will be evolved thru the use of Laser beams and other sophisticated knowledge.

Bob's delivery was dramatic and the house gave him a standing ovation, a well deserved kudoo, not often seen at the meetings. We are certainly glad you were able to escape from the cemetary in time to make the engagement.....

Prepared by: Art Schultz, W9BR, Program Arm Twister

REMEMBER TO GO DIRECTLY TO MALLORY TECHNICAL INSTITUTE 1315 E. Washington St.
TOUR STARTS AT 7:30 Sharp ROOM 220. CUL.

MALLORY TECHNICAL INSTITUTE

PARKING MAP

